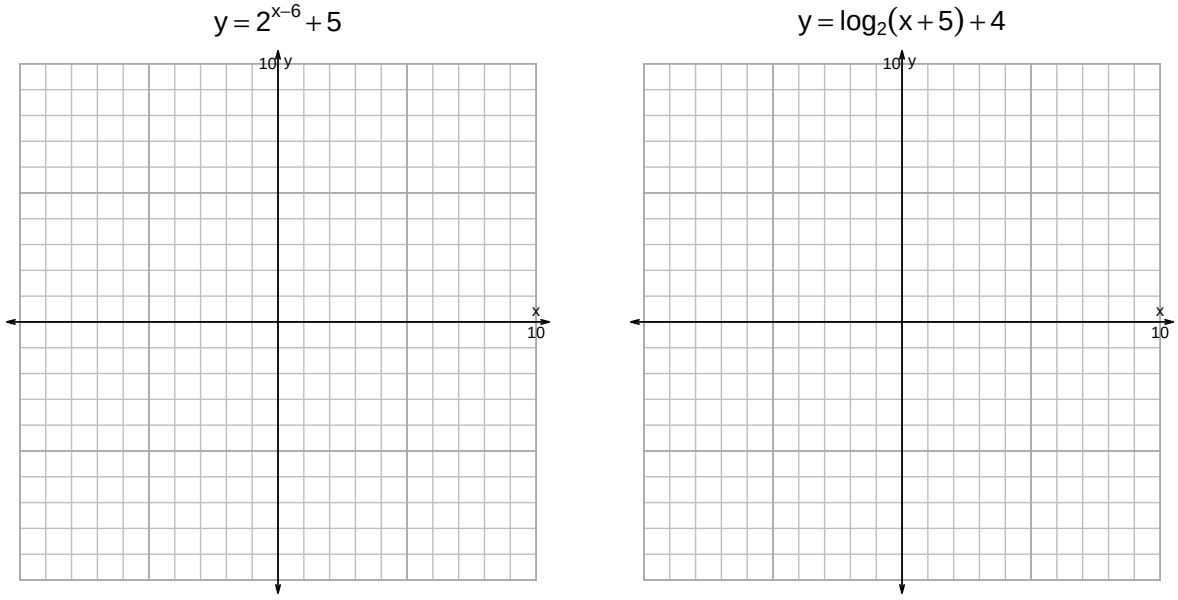
Name: Date:

S18QUIZ: EXP LOG (QUIZ V271)

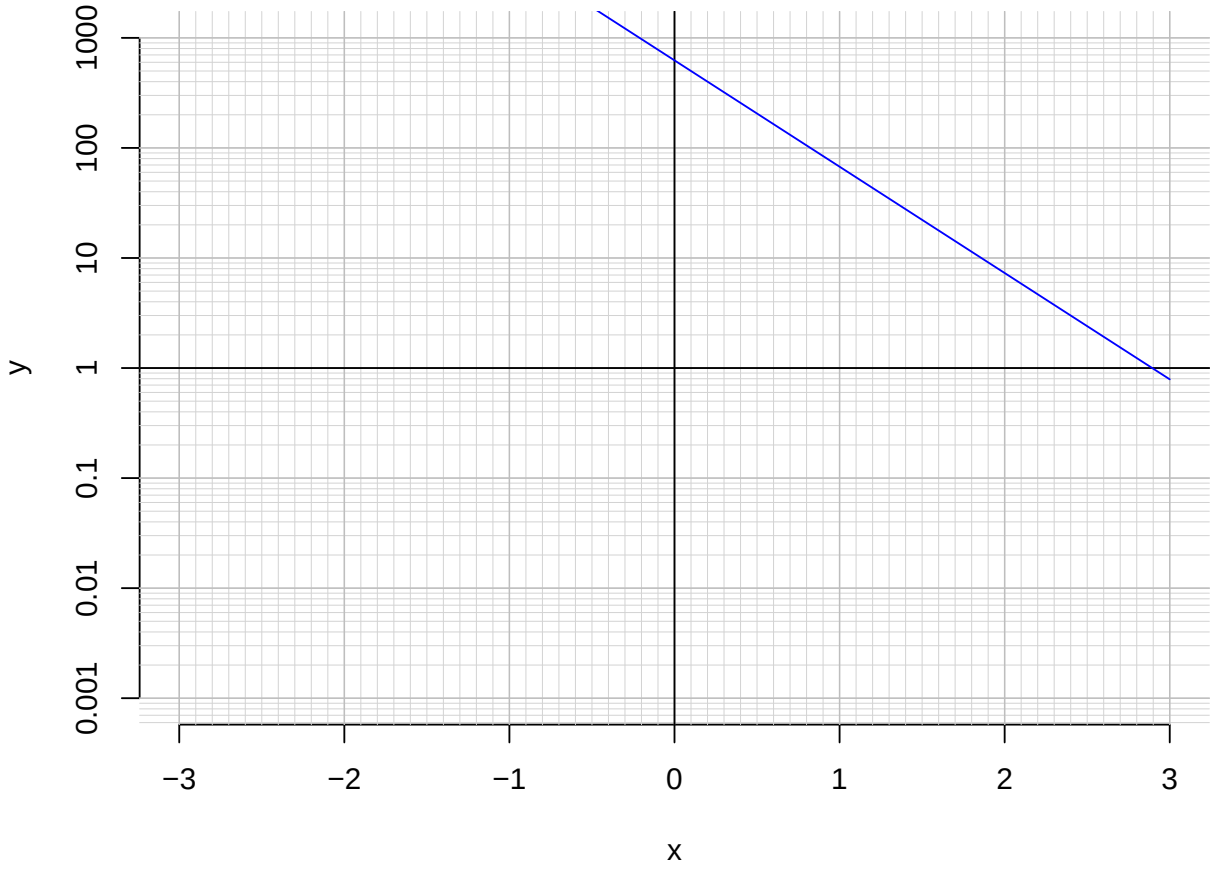
1. Graph $y = 2^{x-6} + 5$ and $y = \log_2(x+5) + 4$ on the grids below. Also, draw any asymptotes with dotted lines.



2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$-23 = \left(\frac{-3}{4}\right) \cdot 10^{-5t/7}$$

3. An exponential function $f(x) = 625 \cdot e^{-2.22x}$ is graphed below on a semi-log plot.



a. Using the plot above, evaluate $f(0.1)$.

b. Express $f^{-1}(x)$, the inverse of f.

c. Using the plot above, evaluate $f^{-1}(3)$.